

Title (en)

METHOD FOR PRODUCING A CATALYTIC MATERIAL FOR ELECTRODES OF A FUEL CELL

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES KATALYTISCHEN MATERIALS FÜR ELEKTRODEN EINER BRENNSTOFFZELLE

Title (fr)

PROCÉDÉ DE FABRICATION D'UN MATÉRIAU CATALYTIQUE POUR DES ÉLECTRODES D'UNE PILE À COMBUSTIBLE

Publication

EP 2510570 B1 20190109 (DE)

Application

EP 10784693 A 20101115

Priority

- DE 102009057797 A 20091210
- EP 2010006946 W 20101115

Abstract (en)

[origin: WO2011069593A1] The invention relates to a method for producing a catalytic material for electrodes of a fuel cell, wherein a noble metal alloy containing at least one metal of the platinum and/or gold group and at least one further transition metal and adhering to an electrically conductive substrate material containing carbon is brought in contact with a solution of a salt or an acid of a noble metal, which in the present solution has a higher positive electrochemical potential than the at least one further transition metal of the noble metal alloy, so that at least part of the at least one transition metal is electrochemically exchanged for atoms of the noble metal on a surface of the noble metal alloy. The invention further relates to a catalytic material for electrodes of a fuel cell and to a fuel cell that comprises electrodes having such a material.

IPC 8 full level

H01M 4/86 (2006.01); **B22F 1/02** (2006.01); **B22F 9/24** (2006.01); **C22C 5/02** (2006.01); **C22C 5/04** (2006.01); **C22C 19/03** (2006.01); **C23C 18/54** (2006.01); **H01M 4/88** (2006.01); **H01M 4/92** (2006.01); **H01M 8/1018** (2016.01)

CPC (source: EP)

C22C 5/02 (2013.01); **C22C 5/04** (2013.01); **C22C 19/03** (2013.01); **C23C 18/54** (2013.01); **H01M 4/8605** (2013.01); **H01M 4/8842** (2013.01); **H01M 4/921** (2013.01); **H01M 4/926** (2013.01); **H01M 8/1007** (2016.02); **H01M 2008/1095** (2013.01); **Y02E 60/50** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102009057797 A1 20110616; EP 2510570 A1 20121017; EP 2510570 B1 20190109; WO 2011069593 A1 20110616

DOCDB simple family (application)

DE 102009057797 A 20091210; EP 10784693 A 20101115; EP 2010006946 W 20101115